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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/363,578	07/29/99	RYU	J 003364.P020

IM22/0322
BLAKELY SOKOLOFF TAYLOR & ZAFMANN LLP
7TH FLOOR
12400 WILSHIRE BOULEVARD
LOS ANGELES CA 90025-1026

EXAMINER

RUTHKOSKY, M

ART UNIT	PAPER NUMBER
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1745

4

DATE MAILED: 03/22/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary

Application No.
09/363,578

Applicant(s)
Ryu et al.

Examiner
Ruthkosky, Mark

Group Art Unit
1745



☒ Responsive to communication(s) filed on Jan 8, 2001

☐ This action is FINAL.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-7 is/are pending in the application

Of the above, claim(s) 7 is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-6 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

Summary

1. Claims 1-6 stand rejected under 35 U.S.C. 102(b).

Election/Restriction

2. Newly submitted claim 7 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: It is a method claim where the previous claims have been to a carbon active material.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 7 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 U.S.C. § 112

3. The rejection of claims 1-6, rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling, has been overcome by the applicant's amendment.
4. The rejection of claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, stands. For example, is the material measured in a

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constant environment? In claim 6, the peak intensity ratio is less than 1. Which peak is larger? Are they concentration dependent? The intensity is relative.

Claim Rejections - 35 U.S.C. § 102

5. Claims 1-6 stand rejected under 35 U.S.C. 102(b) as being anticipated by Takami (5,244,757).

Takami (5,244,757) teaches a lithium secondary battery which comprises spherical particles. The particles have a graphite structural part and a amorphous type part (see Fig. 2). The carbonaceous material has an exothermic peak of 900 °C or less by differential thermal analysis (col. 5, lines 15-30). No peaks are described for each material, however, the materials would have two, separate inherent values based on the graphite material and the non-graphite material. Thus, the claims are anticipated.

Response to Arguments

6. Applicant's arguments filed 1/8/2001 have been fully considered but they are not persuasive. The amendment to claim 1 has a graphite core surrounded by a an amorphous carbon shell. This amendment does not overcome the applied reference ('757). As shown in figure 2, there are many core layers covered by other amorphous coatings.

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With regard to the differential thermal analysis (DTA), the rejection under 112 is withheld as it is understood that the material sample must be measured in a controlled constant environment.

As there are two components to the active material, the graphite and amorphous materials, the DTA will inherently have two peaks. The applicant's specification does not enable or teach specific graphite and amorphous materials. On page 5, it is noted that natural or artificial graphite may be used and various amorphous carbons serve as the other carbon material. Thus, these material will inherently have two specific peaks by DTA. A reference must disclose the claimed subject matter *either expressly or inherently*. *Constant v. Advanced Microwave Devices, Inc.*, 7 USPQ2d 1057 (Fed. Cir. 1988).

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Examiner Correspondence

8. Any inquiry regarding this communication or a previous communication should be directed to Examiner Mark Ruthkosky, Ph.D., whose telephone number is (703) 305-0587 or his supervisor, Gabrielle Brouillette, whose telephone number is (703) 308-0756. Please note that Examiner Ruthkosky is out of the office the first Friday of each bi-week period.

The art unit 1745 unofficial fax number is 703-306-3429, while the PTO official fax number is 703-305-3599.


GABRIELLE BROUILLETTE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700